1 May 2007

SPARKS ARROYO, EL PASO COUNTY, TEXAS
QUALITY CONTROL (QC) AND
INDEPENDENT TECHNICAL REVIEW (ITR) PLAN

1.0 PURPOSE

This Review Plan presents the process that assures quality products for the Sparks Arroyo, El Paso County, Texas, General Investigation (GI) Feasibility Study.

The product to be reviewed by the technical review team is the integrated Feasibility Report. Under the provisions of new U.S. Army Corps of Engineers (USACE) policy, as detailed in EC1105-2-408 dated May 31, 2005, the ITR will be conducted by specialists from organizations outside of the district responsible for the study. Independent Technical Review will be conducted for all decision documents and will be independent of the technical production of the project. This QC and ITR Plan is, by reference, a part of the PMP for this Feasibility Study.

2.0 APPLICABILITY

This document provides the Quality Control Plan for the Feasibility Study. It identifies quality control processes and independent technical review for all work to be conducted under this study authority, including in-house, sponsor and contract work.

3.0 REFERENCES

EC 1105-2-408 "Peer Review of Decision Documents" (May 31, 2005)
EC 1105-2-407 "Planning Models Improvement Program: Model Certification" (May 31, 2005)
EC 1105-2-409 "Planning in a Collaborative Environment" (May 31, 2005)
ER 1105-2-100 "Planning Guidance Notebook & Appendices"

4.0 GENERAL PROJECT DESCRIPTION

The original authorizing language states: "RESOLVED BY THE COMMITTEE OF ENVIRONMENT AND PUBLIC WORKS OF THE UNITED STATES SENATE, that the Board of Engineers for Rivers and Harbors, created under Section 3 of the River and Harbor Act approved June 13, 1902, is hereby requested to review the report of the Chief of Engineers on El Paso County, Texas, published as House Document Number 207, 89th Congress, 1st Session, and other pertinent reports with particular reference to providing a plan for development, vicinity of El Paso, Texas. Such studies are to include appropriate consideration of the need for additional flood control measures, provision of conservation storage in existing reservoirs, detention basins within the Rio Grande basin, and other water resource development measures as may be appropriate."

The purpose of the Feasibility phase study is to determine if there is a Federal (Corps) interest in addressing the water resource problems and opportunities in the Sparks Arroyo study area of El Paso County, Texas. In response to the study authority, a Reconnaissance study was initiated in

March 2002 and completed in November 2002. The Reconnaissance study resulted in the finding that there is a Federal interest in continuing into the Feasibility phase of study. A Feasibility Cost Sharing Agreement (FCSA) was signed in December 2003 and this Feasibility study was initiated in January 2004. The Feasibility report resulting from these studies is intended to serve as the basis for authorizing a specific project(s) for construction. The primary goal of the Feasibility study is to develop a project(s) to address flood control, erosion, sedimentation and environmental restoration problems within the Sparks Arroyo study area.

5.0 REVIEW REQUIREMENTS

Initial Quality Control (QC) review will be handled within the Section or Branch performing the work or by staff in the corresponding Sponsor Department when it involves In-Kind Services. Additional QC will be performed by the Project Delivery Team (PDT) during the course of completing the integrated Feasibility Study. The detailed checks of computations and methodology should be performed at the District level, and the processes for this level of review are well established.

Pursuant to EC 1105-2-408, item 2 c (2), Models used in the preparation of decision documents covered by this Circular will be reviewed in accordance with EC 1105-2-407, Planning Models Improvement Program: Model Certification, and are not subject to the requirements of this [1105-2-408] Circular. The uses and applications of models in individual studies that lead to the preparation of decision documents covered by this Circular will be reviewed in accordance with the requirements of this Circular.

This study will not be novel, controversial or precedent setting, nor have highly significant national importance. As a result, the ITR will focus on:

- Review of the planning process and criteria applied.
- Review of the methods of preliminary analysis and design.
- Compliance with authority and NEPA requirements.
- Completeness of preliminary support documents.
- Spot checks for interdisciplinary coordination.

6.0 REVIEW PROCESS

The review of the Sparks Arroyo Feasibility Study will follow the criteria set forth in CESPD-R 1110-1-8, Appendix c, dtd. 20 September 2004. The Existing Conditions (F3) ITR and review of this study was completed in November 2005. The F4 review is scheduled for the fall of 2007

7.0 REVIEW SCHEDULE

The commencement of this study preceded the requirement for PcX involvement and development of this Review Plan. Current review activities are summarized below.

TASK	START DATE	FINISH DATE
Develop ITR Plan & post to Web Site, PCX	30 March 2007	30 Apr 2007

Identify Regional ITR resources & Recommend ITR Plan to PCX	1 May 2005	30 May 2005
PCX Approves or Assigns ITR Team	1 June 2005	28 June 2005
Review of Models	NA	
ITR Team Review of F3 documents	3 June 2005	28 July 2005
F3 Meeting	28 July 2005	28 July 2005
Preparation for AFB	1 August 2007	
Alternative Formulation Briefing	18 Sept. 2007	
Review of Draft Feasibility Report	4 February 2008	
Final Feasibility Report	16 June 2008	

8.0 PROJECT RISK

The PDT members were asked to assess the risk associated with this project based upon five factors and rate the project quantitatively among five levels of project risk of failure ranging from low to high (risk score class). The PDT scored each Project Risk Item in the Review Plan Score Guide (Table 8.1) and calculated an overall Average Project Risk Assessment Score. The exact value of the scores were not as important as compared to what risk score class (low, medium or high) the Average Project Risk Assessment Score was classified. Based upon the PDT analysis, the project is projected to be moderate in risk.

The PDT considered previous District project experience when making this analysis. No attempt was made to tie this to a national scale of rating, so it is likely that the risk level would have been lower if the team were to have compared the risk of this project to a large ecosystem restoration project elsewhere. The Project Schedule and Cost were assessed as a low degree of risk if they both remained flexible and a high degree of risk if the Project schedule and cost was fixed. Staff Technical Experience was assessed as a low degree of risk if the staff had a high level of experience/expertise and a high degree of risk if the staff had a low level of experience. The results of the evaluation are tabulated as follows:

Table 8.1 Review Plan Score Guide

Project Risk Item	**Risk Assessment Score (Low Degree to High Degree)**					**Score**
	Low		Medium		High	
Project Complexity	1	2	3	4	5	2
Customer Expectations	1	2	3	4	5	4
Product Schedule/Cost	1	2	3	4	5	3
Staff Technical Experience	1	2	3	4	5	2
Failure Impact and Consequences	1	2	3	4	5	3
Average Project Risk Assessment Score						**3 (Medium Risk)**

9.0 REVIEW PLAN

The components of the Review Plan (external ITR only not Peer Review) were developed pursuant to the requirements of EC1105-2-408.

9.1 TEAM INFORMATION

The decision documents that will be the ultimate focus of the peer review process are the integrated Feasibility Report and the Environmental Record of Decision (ROD) for the Sparks Arroyo, El Paso County, Texas, General Investigation Feasibility Study. The purpose of the decision document will be to begin the approval process leading to the authorization to begin Plans & Specifications. Albuquerque District will conduct internal review of the Feasibility Documents. Independent Technical Review of the documents will be conducted by the Sacramento District.

9.2 SCIENTIFIC INFORMATION

Based upon the self-evaluation by the PDT, it is unlikely that the USACE report to be disseminated will contain highly influential scientific information. The flood damage reduction measures that were identified within the 905 (b) analysis will be evaluated using standard hydrologic, hydraulic, coastal, geotechnical and economic processes.

Economic and planning processes will additionally consider the Collaborative Planning EC (EC 1105-2-409). This EC describes the economic accounts that can be used to describe economic benefits. The four main economic accounts are national economic development (NED), national ecosystem restoration (NER), regional economic development (RED), and the other social effects (OSE).

9.4 EXTERNAL PEER REVIEW PROCESS

No External Peer Review process is envisioned at this time. This assessment is supported by the evaluation of the PDT in April 2007 and tabulated as shown in Section 8 of this Review Plan.